

REMARKS

Claims 1-8 and 14-26 are pending in the application. Claims 1, 2, 4-8, and 14-19 have been amended and claims 20-24 have been withdrawn pursuant to a restriction requirement. Further, claims 25 and 26 are newly added in order that the applicants can more fully claim the subject matter of their invention. No new matter has been introduced by the amendment.

Rejection Under 35 USC §101

Claims 1-19 have been rejected over Gimelli et al., Bauer et al. (WO 00/70971), Bauer et al. (WO 00/70970), Spanier, Eisfeldt, or Baer et al. This rejection is overcome in view of the amendment of the claims together with the following remarks.

The applicants claim an acidified, shelf stable, non-fermented, dairy-based food product that addresses several deficiencies found in the prior art food products. The applicants have provided a food product that has a low pH, high water activity, and that provides superior shelf stability without the need for retort cooking technique. Further, the applicants' inventive food product achieves shelf stability without the need for high-temperature sterilization processes.

A major problem in acidified, dairy-based food products of the prior art relates to their off flavors and poor texture that results from the acidification process. The applicants have developed a food product that has a pH of no more than about 4.6, yet has a smooth texture that is devoid of lumps and granules present in many acidified food products. A smooth texture is achieved, in part, through a relatively large amount of water, while masking casing precipitants. Harsh flavors are avoided by using one or both of acidic calcium sulfate or sodium acid sulfate as an acidulant. The applicants assert that their claim dairy-based food product is not suggested or disclosed by compositions of the prior art.

Claim 1, as amended, recites a dairy-based food product that includes a casein source, acidic calcium sulfate or sodium acid sulfate, a sufficient amount

of a masking compound to mask acid-induced casein precipitants, and about 60 or 75 percent water. Sufficient acidulant is present, such that the pH of the food product is no more than about 4.6. Further, the water activity of a food product is greater than about 0.85. The combination of ingredients function to provide a food product that is substantially free of harsh flavor. Support for the amended subject matter can be found throughout the applicants' specification. Referring to the applicants' published application U.S. Published Application No. 2005/0058761, see for example, paragraphs [0046], [0038], [0034], and [0030].

Claim 19 has been amended to recite a non-fermented, dairy-based cheese sauce that includes natural cheese, dairy protein, one or both of sodium acid sulfate or acidic calcium sulfate, 60-75 percent water, and a masking compound comprising a combination of cellulose gum and guar gum. The masking compound masks the casine participants and other textural defects in the food product, while the pH of the food product is about 3.0 to about 4.6 and the water activity is greater than about 0.85. The claimed cheese sauce is substantially free of harsh flavors or lumpy texture and is rendered self stable without the use of high heat. Support for the amended subject matter can be found throughout the applicants' specification. Referring to the applicants' published application, U.S. Published Application No. 2005/0058761, see for example, paragraphs [0040], [0046], [0034], [0038], and [0030].

The applicants assert that the prior art does not suggest or disclose their claimed food product or cheese sauce.

Gimelli, et al. discloses an acidified emulsion that has a water activity of about 0.7 to 0.85, contains 20 to 40 percent water and does not contain the claimed acidulants.

Bauer et al. (WO 00/70971) discloses a combination cooking system including at least two functionally independent and complimentary components. The water activity is about 0.81, with 30 percent water, and does not contain the acclaimed acidulants. Similarly, Bauer et al. (WO 00/70970) discloses an

acidified emulsion that does not contain the claimed acidulants, has a water concentration of 20 to 40% and a water activity of 0.75 to 0.85.

Spanier discloses a cheese sauce that includes 70 to 85 percent water but lacks the claim acidulants and must be refrigerated once a container holding the cheese sauce is opened. In the Background section of their specification, the applicants discuss the cheese sauce disclosed in Spanier's U.S. priority patent No. 4,568,555. (Published Application, para. 009). As discussed by the applicants, Spanier discloses a sauce having between 5 and 15 percent cheese and that is self-stable until opened. Also, starch is a key component of the Spanier cheese sauce, and may degrade under acidified conditions. As defined by the applicants, "shelf stable" means that the food product is safe for human consumption whether stored at room temperature or refrigerated. Clearly, the cheese sauce disclosed by Spanier does not meet the applicants' definition of self stable, since the cheese sauce must be refrigerated if not consumed.

Eisfeldt discloses a food desert product that has a reversible gel structure at refrigeration temperatures. The disclosed food products contain water concentrations well below that claimed by the applicants. The food product contains sufficient gel to be pourable at ambient temperature and set to a gel at refrigeration temperatures.

Baer et al. disclose a low fat or fat-free food product. The product includes microcrystalline cellulose dispersed in the food product as a fat substitute.

None of the cited references suggest or disclose the particular combination of ingredients that yield a dairy-based food product or cheese sauce that contains the recited acidulents and that is shelf stable, has a pH below 4.6, and is substantially free of harsh flavors or lumpy textures.

New Claims

The applicants have added new claim 25 that depends from claim 1 and recites their preferred acidulent of the two acidulents recited in claim 1. Further,

new claim 26 recites dairy protein as the casein source and that the dairy protein comprises about 5% to about 9% of the food product. These claim are fully supported by the applicants' specification as identified above.

The applicants have made a novel and non-obvious contribution to the art of acidified, shelf stable, dairy-based food products. The claims at issue distinguish over the cited references and are in condition for allowance. Such allowances now earnestly requested.

Respectfully submitted,

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